RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: Source:	10/562, 472
Date Processed by STIC:	PCT.
bate 1 locessed by SIIC:	01/12/2006

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number:	10/562, 472	CRF Edit Date: 0//12/2006 Edited by:
	nucleic acid/amino acid numbers. ned" to the next line	/text in cases where the sequence
Corrected th	he SEQ ID NO. Sequence numb	pers edited were:
Inserted or on the NO's edite		he end of a nucleic line. SEQ ID
Deleted:	_ invalid beginning/end-of-file to	ext ; page numbers
Inserted ma	andatory headings/numeric iden	tifiers, specifically:
Moved resp	onses to same line as heading/nu	umeric identifier, specifically:
Other:		

Revised 09/09/2003



PCT

RAW SEQUENCE LISTING DATE: 01/12/2006
PATENT APPLICATION: US/10/562,472 TIME: 11:42:48

Input Set : A:\PTO.DA.txt

Output Set: N:\CRF4\01122006\J562472.raw

```
4 <110> APPLICANT: Bayer CropScience AG
      6 <120> TITLE OF INVENTION: Method of identifying fungicidally active compounds based on
fungal
              mevalonate kinases
      9 <130> FILE REFERENCE: BCS 03-3035
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/562,472
C--> 11 <141> CURRENT FILING DATE: 2005-12-22
     11 <160> NUMBER OF SEQ ID NOS: 2
     13 <170> SOFTWARE: PatentIn version 3.1
     15 <210> SEQ ID NO: 1
     17 <211> LENGTH: 1341
     19 <212> TYPE: DNA
     21 <213> ORGANISM: Ustilago maydis
     23 <220> FEATURE:
     25 <221> NAME/KEY: CDS
     27 <222> LOCATION: (1)..(1341)
     29 <223> OTHER INFORMATION:
 --> 31 <400> 1
     33 atg aac cgt gca agg ctc gag acc cgc ggc ggt gaa ggg gaa cct cgc
                                                                               48
     34 Met Asn Arg Ala Arg Leu Glu Thr Arg Gly Gly Glu Gly Glu Pro Arg
     35 1
     37 teg get eag gat eac eeg eeg eeg teg teg gtg gtt gte agt geg eet
                                                                               96
     38 Ser Ala Gln Asp His Pro Pro Pro Ser Ser Val Val Ser Ala Pro
     41 ggc aag gtg atc ctt ttc ggt gag cac gca gtg gtg cat ggt att act
                                                                              144
     42 Gly Lys Val Ile Leu Phe Gly Glu His Ala Val Val His Gly Ile Thr
     45 gct gtc gcc gcc tcg gtg gcg ctg cga tgc tac gct aac gta tcg cca
                                                                              192
     46 Ala Val Ala Ala Ser Val Ala Leu Arg Cys Tyr Ala Asn Val Ser Pro
                                                                              240
     49 cga gag gat ggc aag att tcg ctc gat ttg cct gat ctc ggc gtg atc
     50 Arg Glu Asp Gly Lys Ile Ser Leu Asp Leu Pro Asp Leu Gly Val Ile
                            70
                                                75
     53 cac act tgg aac atc gcc gat ctt cct tgg tct gct gtg cct aaa tcc
                                                                              288
     54 His Thr Trp Asn Ile Ala Asp Leu Pro Trp Ser Ala Val Pro Lys Ser
     55
                        85
                                            90
     57 att caa ggt ggt ggc gcc gta cct gac tcg ctc gac aag acg ctt att
                                                                              336
     58 Ile Gln Gly Gly Gla Val Pro Asp Ser Leu Asp Lys Thr Leu Ile
                    100
                                        105
     61 ggc gcc atc gaa aag gtg gtg ggc gac acg gtc aac gag agc gaa aga
                                                                              384
     62 Gly Ala Ile Glu Lys Val Val Gly Asp Thr Val Asn Glu Ser Glu Arg
                                    120
     65 ago cat got got tog ato goo tit otg gtg cit tac atg tgc ato goo
                                                                              432
```

66 Ser His Ala Ala Ser Ile Ala Phe Leu Val Leu Tyr Met Cys Ile Ala

RAW SEQUENCE LISTING DATE: 01/12/2006 PATENT APPLICATION: US/10/562,472 TIME: 11:42:48

Input Set : A:\PTO.DA.txt

Output Set: N:\CRF4\01122006\J562472.raw

6 7	120					125					140					
67	130	~~+		~~~	~~~	135	~~~	~~~	+++	~+ ~	140	aat	+ ~~	aat	ata	480
	t cag															400
	y Gln	Ala	Asp	АТА	_	Ala	GIII	Ala	Pne		ьeu	Arg	ser			
71 14					150					155	~+~		.		160	E20
	c atc															528
	o Ile	GIY		_	Leu	GIY	ser	ser		Ата	ьeu	ser	ser		Leu	
75				165					170					175		596
	t gcg															576
	a Ala	Ala		Thr	IIe	Leu	Tyr		Arg	тте	Pro	Ата		GIY	ser	
79			180					185					190			
	a ctg															624
	u Leu		Ala	Glu	Hıs	Ser		His	IIе	Asn	GIU	_	Ala	Pne	Leu	
83		195					200					205				
	t gaa															672
	r Glu	Lys	Val	Ile	His	_	Thr	Pro	Ser	GIY		Asp	Asn	Thr	Val	
87	210					215					220					
	t gtt															720
	a Val	His	Gly	Gly		Ile	Ala	Phe	Thr	_	Ala	His	Pro			
91 22					230					235					240	
	g ctc															768
94 Th	r Leu	Thr			Lys	Met	Asn	Lys		Lys	Gly	Phe	Ser		Phe	
95				245					250					255		
_	t ttc			_	-	-	-	_			-		_			816
98 Ar	g Phe	Leu		Val	Asp	Ser	Cys		Gly	Arg	Glu	Gly		Lys	Leu	
99			260					265					270			
101 a																
														gtc		864
102 I	ite get :le Ala	a His	. Val				Lys	Glu				Thr	Arg			864
102 I 103	le Ala	His 275	Val	Ala	Ala	Gln	Lys 280	Glu)	Se1	Glu	Pro	285	Arg	y Val	Asn	
102 I 103 105 g	le Ala	His 275 ctc	Val gct	Ala cga	Ala ato	Gln cag	Lys 280 acg	Glu) gato	Ser gc	Glu gat	rec	Thr 285 g gcc	Arg	y Val	Asn gtg	864 912
102 I 103 105 g 106 A	le Ala gog got ala Ala	His 275 cto Leu	Val gct	Ala cga	Ala ato	Gln cag	Lys 280 acg Thr	Glu) gato	Ser gc	Glu gat	tco Ser	Thr 285 g gcc Ala	Arg	y Val	Asn gtg	
102 I 103 105 g 106 A 107	ile Ala gog got ala Ala 290	a His 275 ctc Leu	Val gct Ala	Ala cga Arg	Ala ato	Gln cag Gln 295	Lys 280 acg Thr	Glu) g ato	Ser gcc Ala	Glu gat Asp	tcg Ser 300	Thr 285 g gcc Ala	Arg c cag Glr	y Val y ctc ı Leu	Asn gtg Val	912
102 I 103 105 g 106 A 107 109 c	ile Ala geg get ala Ala 290 etc act	His 275 ctc Leu J	Val get Ala	Ala cga Arg	Ala ato Ile	cag Gln 295	Lys 280 acg Thr	Glu gato Ile	Ser gcc Ala	gat gat Asp	tcg Ser 300	Thr 285 g gcc Ala)	Arg cag Gln	y Val y ctc n Leu n cag	Asn gtg Val ctt	
102 I 103 105 g 106 A 107 109 c 110 L	cg gct la Ala 290 etc act	His 275 ctc Leu J	Val get Ala	Ala cga Arg	ato I ato I Ile I ggt	cag Gln 295 ctc Leu	Lys 280 acg Thr	Glu gato Ile	Ser gcc Ala	gat gat Asp gag	tcg Ser 300 g caa	Thr 285 g gcc Ala)	Arg cag Gln	y Val y ctc n Leu n cag	Asn gtg Val ctt Leu	912
102 I 103 105 g 106 A 107 109 c 110 L 111 3	de Ala geg get ala Ala 290 etc act acu Thi	His 275 ctc Leu ggo c Gly	Val get Ala aac	Ala cga Arg tcg	ato I ato I Ile I ggt I Gly 310	cag Gln 295 ctc Leu	Lys 280 acg Thr tct	Glugator Ile	gco Ala tco	gat gat Asp gag Glu 315	tco Ser 300 g caa	Thr 285 g gcc Ala) a gtt	Arg c cag d Gln c gca	y Val y ctc n Leu n cag	Asn gtg Val ctt Leu 320	912 960
102 I 103 105 g 106 A 107 109 c 110 L 111 3 113 c	geg get ala Ala 290 etc act eu Thi 05 ege gaa	His 275 ctc	yal get Ala aac Asn	Ala cga Arg tcg Ser	Ala ato Ile ggt Gly 310	cag Gln 295 ctc Leu	Lys 280 acg Thr tct Ser	g Glu g ato g ato c Ile c cgo c Arg	Ser GCC Ala tcc Ser Gaa	gat gat Asp gag Glu 315	tco Ser 300 g caa i Glr	Thr 285 g gcc Ala) a gtt n Val	Arg	y Val y ctc Leu cag a Gln c gag	Asn gtg Val ctt Leu 320 gta	912
102 I 103 9 105 g 106 A 107 109 C 110 L 111 3 113 C	de Ala geg get ala Ala 290 etc act acu Thi	His 275 ctc	yal get Ala aac Asn	Ala cga Arg tcg Ser aag	Ala ato Ile Iggt Gly 310 Gag Gag	cag Gln 295 ctc Leu	Lys 280 acg Thr tct Ser	g Glu g ato g ato c Ile c cgo c Arg	geographic Ser	gat gat Asp gag Glu 315 a ctt	tco Ser 300 g caa i Glr	Thr 285 g gcc Ala) a gtt n Val	Arg	y Val y ctc Leu cag a Gln c gag	gtg Val ctt Leu 320 gta Val	912 960
102 I 103 105 g 106 A 107 109 C 110 L 111 3 113 C 114 A 115	gcg gct Ala Ala 290 etc act eu Thr 005 egc gaa	His 275 ctc	y Val	Ala cga Arg tcg Ser aag Lys 325	Ala ato Ile ggt Gly 310 g cag	cag Gln 295 ctc Leu aac Asn	Lys 280 acg Thr tct Ser cat	g ato g ato f Ile c cgo Aro ago Ser	ser geographic services and services and services gas gas gas gas gas gas gas gas gas ga	gat gat Asp gag Glu 315 a ctt	tco Ser 300 g caa i Glr g gtt	Thr 285 g gcc Ala) a gtt n Val	c cag c cag d Gln gca Ala	y Val y ctc Leu a cag a Gln c gag i Glu 335	Asn gtg Val ctt Leu 320 gta Val	912 960 1008
102 I 103 g 105 g 106 A 107 l 109 c 110 L 111 3 113 c 114 A 115 l	gcg gct la Ala 290 tc act leu Thr 05 gc gaa arg Glu	His 275 ct	s Val	Ala cga Arg tcg Ser aag Lys 325	Ala ato gle ggt ggt ggt ggg ggg ggg	Glm cag cag cag cag cag cag cag acc acc acc	Lys 280 acg Thr tct Ser cat His	g ato g ato c Ile c ego c Aro c ago s Ser	ser geographic services and services are services and services and services and services and services and services are services and services are services and services and services and services are services and ser	gata Asp gag gag gag Glu 315 a ctt Leu c aag	tcg Ser 300 g caa i Glr i gtt Val	Thr 285 g gcc Ala O gtt Nal C ggg L Gly	a Arg	y Val y ctc y Leu a cag a Gln c gag y Glu 335 y ttt	Asn gtg Val ctt Leu 320 gta Val gca	912 960
102 I 103 105 g 106 A 107 109 C 110 L 111 3 113 C 114 A 115 117 t 118 S	gcg gct Ala Ala 290 etc act eu Thr 005 egc gaa	His 275 ct	s Val	Ala cga Arg tcg Ser saag Lys 325 ctg	Ala ato gle ggt ggt ggt ggg ggg ggg	Glm cag cag cag cag cag cag cag acc acc acc	Lys 280 acg Thr tct Ser cat His	g Glu g ato	ser geographic ser gas gas gas as Asr	gata Asp gag gag gag Glu 315 a ctt Leu c aag	tcg Ser 300 g caa i Glr i gtt Val	Thr 285 g gcc Ala O gtt Nal C ggg L Gly	Arg cag Gln gca Ala tcg Leu tcg	y Val y ctc y Leu a cag a Gln c gag i Glu 335 y ttt	Asn gtg Val ctt Leu 320 gta Val gca	912 960 1008
102 I 103 1 105 g 106 A 107 1 109 C 110 L 111 3 113 C 114 A 115 1 117 t 118 S 119	gcg gct la Ala 290 tc act leu Thr 05 gc gaa arg Glu ccg cac	a His 275 ctc ctc Leu c ggc Gly a ctg a Leu c gct c Ala	g Val	Ala cga Arg tcg Ser sag Lys 325 ctg	atcases Glr.	cage Glm 295 ctc Leu gaac Asn	Lys 280 acg Thr tct Ser cat His	g Glu g ato	ser geographic services and services are services and services and services and services and services and services are services and services and services and services and services are ser	gate gage gage Glu 315 a ctt Leu	tog Ser 300 g cas i Glr g tt Val	Thr 285 g gcc Ala o gtt n Val c ggg c Gly	c cag c cag c cag c cag c gca Ala cto Leu tcg ser 350	y Val y ctc y Leu a cag a Gln gag i Glu 335 ttt Phe	Asn gtg Val ctt Leu 320 gta Val gca Ala	912 960 1008 1056
102 I 103 g 106 A 107 l 109 C 110 L 111 3 113 C 114 A 115 l 117 t 118 S 119 l 121 C	gcg gct la Ala 290 tc act leu Thi 305 gc gaa arg Glu ccg cac ser His	a His 275 ctc ctc ctc ctc ctc ctc ctc ctc ctc ct	y Val	Ala cga Arg tcg Ser aag Lys 325 ctg Leu	atcases actions actions and actions ac	cage Glm 295 ctc Leu aag	Lys 280 acg Thr tct Ser cat His	g Glu g ato g ato g ato g ato g ato g ato g ago g Arg g ago g Ser g aag g a45 g aca g aca	ser ged ged ted ged ged ged ged ged ged ged ged ged g	gate gage gage glugger glugger glugger glugger glugger gage gage gage gage gage gage gage	tog Ser 300 g cas i Glr g tt i Val acc	Thr 285 g gcc Ala o gtt n Val c ggg c Gly	a Arg	y Val y ctc y Leu a cag a Gln gag i Glu 335 y ttt Phe	Asn gtg Val ctt Leu 320 gta Val gca Ala tgt	912 960 1008
102 I 103 G 105 G 106 A 107 C 110 L 111 3 113 C 114 A 115 C 117 t 118 S 119 C 121 C	gcg gct la Ala 290 tc act leu Thr 05 gc gaa arg Glu ccg cac	His 275 ctc	s Val	Ala cga Arg tcg Ser aag Lys 325 ctg Leu	atcases actions actions and actions ac	cage Glm 295 ctc Leu aac ttg Leu aag	Lys 280 acg Thr tct Ser cat His atc	g Glu g ato g ato g ato g ato g ato g ato g ago g Arg g ago g Ser g aag g ato	ser ged ged ted ged ged ged ged ged ged ged ged ged g	gate gage gage glugger glugger glugger glugger glugger gage gage gage gage gage gage gage	tog Ser 300 g cas i Glr g tt i Val acc	Three 285 grant and the 285 gr	Argonic Cagonic Glamater Argonic Cagonic Glamater Alamater Argonic Cagonic Glamater Argonic Cagonic Ca	y Val y ctc y Leu a cag a Gln gag i Glu 335 y ttt Phe	Asn gtg Val ctt Leu 320 gta Val gca Ala tgt	912 960 1008 1056
102 I 103 105 g 106 A 107 109 C 110 L 111 3 113 C 114 A 115 117 t 118 S 119 121 C 122 P 123	geg get la Ala 290 etc act leu Thi 05 egc gaa arg Glu ceg cac eer His	His 275 ctc	s Val	Ala cga Arg tcg Ser saag Lys 325 ctg Leu	ato ato ggt ggt ggg agg agg agg agg agg agg agg	cag Glm 295 ctc Leu Jaac Asm ttg ttg	Lys 280 acg Thr tct Ser cat His atc	g Glu g ato g ato g ato g ato g ato g ago g Arg g ago g ago g ago g ato g ago g ato g ago g ato	ser geographic services and services are services and services are services and services and services and services and services are services and services and services and services are services and services and services and services are services and ser	gate gage gage gage gage gage gage gage	tog Ser 300 g caa g Glr g gtt Val g aco	Three 285 general Alam Value Gly Gly Gly 365	Arg cag Gln gca Ala cto Leu scr 350 gga gga	y Val	Asn gtg Val ctt Leu 320 gta Val gca Ala tgt Cys	912 960 1008 1056 1104
102 I 103 g 106 A 107 109 C 110 L 111 3 113 C 114 A 115 117 t 118 S 119 121 C 122 P 123 g	geg get la Ala 290 etc act leu Thi 305 egc gaa arg Glu ceg cac er His	a His 275 cto C	s Val	Ala cga Arg tcg Ser saag Lys 325 ctg Leu	ato ato ggt ggt ggg agg agg ggg agg ggg agg ggg agg ggg agg ggg agg ggg agg ag	Glm Cag Glm 295 Ctc Leu Gla Asn Ltc Glm Ltc Glm Cag	Lys 280 acg Thr tct Ser cat His atc	g Glu g ato g ato g ato g ato g ato g ato g ago g Arg g ago g ago g ago g ato	ser geographic services and services are services and services are services and services and services and services and services are services and services and services and services are services and services and services and services and services are ser	gate gage gage gage gage gage gage gage	tog Ser 300 g cas n Glr cas Thr g acc g ac	Three 285 general Alam Value Gly Gly Gly 365 gagg gagg gagg gagg gagg gagg gagg ga	Arg cag Gln gca Ala cto Leu scr 350 gga Gly	y Val	Asn gtg Val ctt Leu 320 gta Val gca Ala tgt Cys gag	912 960 1008 1056
102 I 103 105 g 106 A 107 109 C 110 L 111 3 113 C 114 A 115 117 t 118 S 119 121 C 122 P 123 125 g 126 A	gcg gct la Ala 290 ctc act leu Thr 605 cgc gaa arg Glu ccg cac cc gat cc gat lca gtt la Val	His 275 ctc	s Val	Ala cga Arg tcg Ser saag Lys 325 ctg Leu	ato ato ggt ggt ggg agg agg ggg agg ggg agg ggg agg ggg agg ggg agg ggg agg ag	Glm cag Glm 295 ctc Leu aac Asn Leu Lys aag Asp	Lys 280 3 acg Thr tct Ser Cat His Acg Acg Asp	g Glu g ato g ato g ato g ato g ato g ato g ago g Arg g ago g ago g ago g ato	ser geographic services and services are services and services are services and services and services and services and services are services and services and services and services are services and services and services and services and services are ser	gate gage gage gage gage gage gage gage	tog Ser 300 g caa g Glr g gtt Val g acc g Thr g gga g Gly	Through the second of the seco	Arg cag Gln gca Ala cto Leu scr 350 gga Gly	y Val	Asn gtg Val ctt Leu 320 gta Val gca Ala tgt Cys gag	912 960 1008 1056 1104
102 I 103 g 106 A 107 109 C 110 L 111 3 113 C 114 A 115 117 t 118 S 119 C 122 P 123 G 126 A 127	gcg gct la Ala 290 tc act leu Thi 305 cg gaa arg Glu cer His cc gat pro Asp gca gtt la Val 370	a His 275 cto Con Leu Con Gly Cto Gly	g Val	Ala cga Arg tcga Ser aag Lys 325 ctg Leu gct Ala	Ala ato Ile ggt Gly 310 Gly Cag Glr Gly	Glm cag Glm 295 ctc Leu aac Asn Leu aag Lys Asp 375	Lys 280 acg Thr tct Ser cat His atc 11e 360 gac Asp	g Glu g ato	ser geographic gase Gli	gate a Asp gage Glu 315 a ctt Leu D aag a Lys c Ala	togo Ser 300 caa Glr Glr Val acc Thr G gga Glr	Through the second of the seco	c cag c cag d Gln c gca Ala cto Leu ser ser gca Gln c gc	y Val	Asn gtg Val ctt Leu 320 gta Val gca Ala tgt Cys gag Glu	912 960 1008 1056 1104 1152
102 I 103 105 g 106 A 107 109 C 110 L 111 3 113 C 114 A 115 117 t 118 S 119 121 C 122 P 123 125 g 126 A 127 129 C	gcg gct la Ala 290 tc act eu Thi 305 cg gaa arg Glu cer His cc gat pro Asg gca gtt la Val 370 ttg atg	a His 275 cto Con Levi Con	y Alace aace Asn Jate 11e Ser 340 Jate 15 Leu 5 Ctg 2 Gag	Ala cga Arg tcga Ser sag Lys 325 ctg Leu gct Ala	Ala ato ato ato ato ato ato ato ato ato at	Glm cag Glm 295 ctc Leu gaac Asn Leu cag Asn Leu cag Asn	Lys 280 acg Thr tct Ser cat His atc 11e 360 gac Asp	g Glu g ato	ser geographic services and ser	gate agage a	togo Ser 300 caa Glr Glr Val according Glr	Through the state of the state	a Arg	y Val	Asn gtg Val ctt Leu 320 gta Val gca Ala tgt Cys gag Glu aga	912 960 1008 1056 1104
102 I 103 105 g 106 A 107 109 C 110 L 111 3 113 C 114 A 115 117 t 118 S 119 121 C 122 P 123 125 g 126 A 127 129 C	gcg gct la Ala 290 tc act leu Thr 105 gc gaa arg Glu cc cac gc Asg gca gtt la Val 370 ttg atg	a His 275 cto Con Levi Con	y Alace aace Asn Jate 11e Ser 340 Jate 15 Leu 5 Ctg 2 Gag	Ala cga Arg tcga Ser sag Lys 325 ctg Leu gct Ala	Ala ato ato ato ato ato ato ato ato ato at	Glander Cage Gland	Lys 280 acg Thr tct Ser cat His atc 11e 360 gac Asp	g Glu g ato	ser geographic services and ser	gate agage a	togo Ser 300 caa Glr Glr Val according Glr	Through the state of the state	a Arg	y Val	Asn gtg Val ctt Leu 320 gta Val gca Ala tgt Cys gag Glu aga	912 960 1008 1056 1104 1152

RAW SEQUENCE LISTING DATE: 01/12/2006
PATENT APPLICATION: US/10/562,472 TIME: 11:42:48

Input Set : A:\PTO.DA.txt

Output Set: N:\CRF4\01122006\J562472.raw

							ggc Gly										1248
135					405					410					415		
							cga										1296
138	Glu	Ala	Glu	Ala	Lys	Leu	Arg	Phe	Lys	Glu	Ala	Asn	Val	Ser	Asn	Glu	
139				420					425					430			
							gag								tga		1341
142	Leu	Ala	Val	Trp	Ala	Asp	Glu	Leu	Ala	Gly	Trp	Val	Phe	Ala			
143			435					440					445				
146	46 <210> SEQ ID NO: 2																
148	48 <211> LENGTH: 446																
150	0 <212> TYPE: PRT																
						ilago	o may	ydis									
				NCE:													
157	Met	Asn	Arg	Ala	Arg	Leu	Glu	Thr	Arg	Gly	Gly	Glu	Gly	Glu	Pro	Arg	
158	1				5					10					15		
	Ser	Ala	Gln	Asp	His	Pro	Pro	Pro		Ser	Val	Val	Val	Ser	Ala	Pro	
162				20					25					30			
165	Gly	Lys		Ile	Leu	Phe	Gly	Glu	His	Ala	Val	Val	His	Gly	Ile	Thr	
166			35					40					45				
169	Ala	Val	Ala	Ala	Ser	Val	Ala	Leu	Arg	Cys	Tyr	Ala	Asn	Val	Ser	Pro	
170		50					55					60		_		_	
173	Arg	Glu	Asp	Gly	Lys		Ser	Leu	Asp	Leu		Asp	Leu	Gly	Val		
174						70					75	_	_			80	
	His	Thr	\mathtt{Trp}	Asn		Ala	Asp	Leu	Pro	-	Ser	Ala	Val	Pro	_	Ser	
178	_	_	_	_	85	_				90					95		
	Ile	Gln	Gly	_	Gly	Ala	Val	Pro	_	Ser	Leu	Asp	Lys		Leu	Ile	
182				100	_				105	_,		_		110	~-7	_	
	GIY	Ala		GIu	Lys	Val	Val		Asp	Thr	vai	Asn		ser	Glu	Arg	
186	_	'	115		_			120	_		-	_	125				
	ser		Ala	Ala	Ser	TTE	Ala	Pne	ьeu	vai	Leu	_	Met	Cys	тте	Ala	
190	01	130	77-	7	77-	3	135	~1	77-	Db.	77-7	140	7	0	77-	T	
	_	GIN	Ala	Asp	Ala	_	Ala	GIN	Ala	Pne		Leu	Arg	ser	Ala		
	145	т1.	~1	71-	~1	150	~1	Com	Com	70.71.0	155	T 011	cor	Cor	Crra	160	
	PIO	тте	GIY	Ala	_	ьeu	Gly	ser	ser		Ala	neu	Ser	ser	_	Leu	
198	77.	77.	77.	T 011	165	т1.	Leu	TT= ===	~1··	170	Tla	Dec	ח ד ת	Dro	175	Cox	
	Ala	Ala	Ala	180	1111	TIE	пеп	ıyı	185	Arg	116	PIO	міа	190	Gry	PET	
202	~1. ,	T 011	C~~		C1.,	uic	C0~	Πρ×		Tla	7 cn	C1,,	Trn		Dho	T 011	
	GIU	пеп		Ala	GIU	птъ	Ser		птъ	ire	ASII	Giu		міа	FIIE	Leu	
206	C0*	C1.,	195	17 a 1	тіо	Uic	Gly	200	Dro	cor	Clu	บรา	205	λαη	Thr	17a]	
210	ser	210	пуs	vaı	TTE	птэ	215	1111	PIU	SET	Gry	220		ASII	1111	vai	
	בות		Wi c	Cly	Clu	Λ1 a	Ile	λla	Dho	Thr	λνα			Dro	Car	λen	
	225	vai	1113	Gry	Gry	230	116	AIG	FIIC	1111	235	лια	1113	110	DCI	240	
		T.e.v	ሞኮኍ	בו∡	Δen		Met	Aen	Lare	Len		Glv	Phe	Ser	Ser		
218	1111	⊥-u	****	n.u	245	Ly3	1756	HOII	درد	250	 y 3	O T Y	1110		255		
	Ara	Phe	Len	Ten		Agn	Ser	Cvc	val		Ara	Glu	Glv	Lvs		Len	
222	9	1110	Lcu	260	VUI	Lap	JUL	Cys	265	O T Y	9	OI U	- L y	270	-,5		
	Tle	Δla	Hic		Ala	Δla	Gln	Lve		Ser	Glu	Pro	Thr		Val	Asn	
								-,-						3			

RAW SEQUENCE LISTING DATE: 01/12/2006
PATENT APPLICATION: US/10/562,472 TIME: 11:42:48

Input Set : A:\PTO.DA.txt

Output Set: N:\CRF4\01122006\J562472.raw

226			275					280					285			
229	Ala	Ala	Leu	Ala	Arg	Ile	Gln	Thr	Ile	Ala	Asp	Ser	Ala	Gln	Leu	Val
230		290					295					300				
233	Leu	Thr	Gly	Asn	Ser	Gly	Leu	Ser	Arg	Ser	Glu	Gln	۷al	Ala	Gln	Leu
	305					310					315					320
237	Arg	Glu	Leu	Ile	Lys	Gln	Asn	His	Ser	Glu	Leu	Val	Gly	Leu	Glu	Val
238					325					330					335	
241	Ser	His	Ala	Ser	Leu	Glu	Leu	Ile	Lys	Asn	Lys	Thr	Glu	Ser	Phe	Ala
242				340					345					350		
245	Pro	Asp	Gln	Leu	Ala	Thr	Lys		Thr	Gly	Ala	Gly	Gly	Gly	Gly	Cys
246			355					360					365			
249	Ala	Val	Thr	Leu	Leu	Pro		Asp	Phe	Glu	Glu		Lys	Val	Lys	Glu
250		370					375					380				
		Met	Ser	Glu	Leu		Asn	Ala	Gly	Phe	_	-	Tyr	Glu	Thr	_
	385					390					395	-		_	_	400
	Val	Gly	Gly	Asp	-	Phe	Gly	۷al	Lys		Leu	Gln	Asp	Glu		Glu
258					405					410					415	_
	Glu	Ala	Glu	Ala	Lys	Leu	Arg	Phe	_	Glu	Ala	Asn	Val		Asn	Glu
262		_	_	420	_				425		_	<u>-</u>		430		
		Ala		Trp	Ala	Asp	Glu		Ala	Gly	Trp	Val		Ala		
266			435				•	440					445			

VERIFICATION SUMMARY DATE: 01/12/2006

PATENT APPLICATION: US/10/562,472 TIME: 11:42:49

Input Set : A:\PTO.DA.txt

Output Set: N:\CRF4\01122006\J562472.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:31 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:29

Raw Sequence Listing before editing (for reference only)



PCT

RAW SEQUENCE LISTING

DATE: 01/09/2006

PATENT APPLICATION: US/10/562,472

TIME: 11:29:40

Input Set : A:\PTO.DA.txt

Output Set: N:\CRF4\01092006\J562472.raw

- 4 <110> APPLICANT: Bayer CropScience AG
- 6 <120> TITLE OF INVENTION: Method of identifying fungicidally active compounds based on fungal
 - 7 mevalonate kinases
 - 9 <130> FILE REFERENCE: BCS 03-3035
- C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/562,472
- C--> 11 <141> CURRENT FILING DATE: 2005-12-22
 - 11 <160> NUMBER OF SEQ ID NOS: 2
 - 13 <170> SOFTWARE: PatentIn version 3.1

Does Not Comply Corrected Diskette Needed

Cpg-2)

ERRORED SEQUENCES

146 <210> SEQ ID NO: 2

148 <211> LENGTH: 446

150 <212> TYPE: PRT

152 <213> ORGANISM: Ustilago maydis

154 <400> SEQUENCE: 2

157 Met Asn Arg Ala Arg Leu Glu Thr Arg Gly Glu Gly Glu Pro Arg

58 1 5 10 1

161 Ser Ala Gln Asp His Pro Pro Pro Ser Ser Val Val Ser Ala Pro

62 20 25

165 Gly Lys Val Ile Leu Phe Gly Glu His Ala Val Val His Gly Ile Thr

66 35 40 4

169 Ala Val Ala Ala Ser Val Ala Leu Arg Cys Tyr Ala Asn Val Ser Pro

0 50 55 60

173 Arg Glu Asp Gly Lys Ile Ser Leu Asp Leu Pro Asp Leu Gly Val Ile

174 65 70 75 80

177 His Thr Trp Asn Ile Ala Asp Leu Pro Trp Ser Ala Val Pro Lys Ser

78 85 90 95

181 Ile Gln Gly Gly Ala Val Pro Asp Ser Leu Asp Lys Thr Leu Ile

32 100 105 11

185 Gly Ala Ile Glu Lys Val Val Gly Asp Thr Val Asn Glu Ser Glu Arg

.86 115 120 125

189 Ser His Ala Ala Ser Ile Ala Phe Leu Val Leu Tyr Met Cys Ile Ala

190 130 135 140

193 Gly Gln Ala Asp Ala Arg Ala Gln Ala Phe Val Leu Arg Ser Ala Leu

197 Pro Ile Gly Ala Gly Leu Gly Ser Ser Ala Ala Leu Ser Ser Cys Leu

201 Ala Ala Ala Leu Thr Ile Leu Tyr Gly Arg Ile Pro Ala Pro Gly Ser 202 180 185 190

205 Glu Leu Ser Ala Glu His Ser Thr His Ile Asn Glu Trp Ala Phe Leu

206 195 200 205

1/9/2006

RAW SEQUENCE LISTING DATE: 01/09/2006
PATENT APPLICATION: US/10/562,472 TIME: 11:29:40

Input Set : A:\PTO.DA.txt

Output Set: N:\CRF4\01092006\J562472.raw

209 Ser Glu Lys Val Ile His Gly Thr Pro Ser Gly Val Asp Asn Thr Val 215 213 Ala Val His Gly Gly Ala Ile Ala Phe Thr Arg Ala His Pro Ser Asn 230 235 217 Thr Leu Thr Ala Asn Lys Met Asn Lys Leu Lys Gly Phe Ser Ser Phe 221 Arg Phe Leu Leu Val Asp Ser Cys Val Gly Arg Glu Gly Lys Lys Leu 265 225 Ile Ala His Val Ala Ala Gln Lys Glu Ser Glu Pro Thr Arg Val Asn 226 275 280 229 Ala Ala Leu Ala Arg Ile Gln Thr Ile Ala Asp Ser Ala Gln Leu Val 295 233 Leu Thr Gly Asn Ser Gly Leu Ser Arg Ser Glu Gln Val Ala Gln Leu 310 315 237 Arg Glu Leu Ile Lys Gln Asn His Ser Glu Leu Val Gly Leu Glu Val 325 330 241 Ser His Ala Ser Leu Glu Leu Ile Lys Asn Lys Thr Glu Ser Phe Ala 242 345 340 245 Pro Asp Gln Leu Ala Thr Lys Leu Thr Gly Ala Gly Gly Gly Cys 249 Ala Val Thr Leu Leu Pro Asp Asp Phe Glu Glu Lys Val Lys Glu 375 253 Leu Met Ser Glu Leu Glu Asn Ala Gly Phe Lys Cys Tyr Glu Thr Arg 390 257 Val Gly Gly Asp Gly Phe Gly Val Lys Leu Leu Gln Asp Glu Gln Glu 405 410 261 Glu Ala Glu Ala Lys Leu Arg Phe Lys Glu Ala Asn Val Ser Asn Glu 420 425 265 Leu Ala Val Trp Ala Asp Glu Leu Ala Gly Trp Val Phe Ala 440 266 E--> 273/-1VERIFICATION SUMMARY

DATE: 01/09/2006

PATENT APPLICATION: US/10/562,472

TIME: 11:29:41

Input Set : A:\PTO.DA.txt

Output Set: N:\CRF4\01092006\J562472.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:31 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:29

L:273 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2